

CHAPTER 7

PREVENTIVE MEDICINE

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CHAPTER 7. PREVENTIVE MEDICINE

Section A - General

1. Scope. The scope of preventive medicine involves all activities that prevent illness and disease, including immunization; communicable disease control; and epidemiology.
2. Responsibility.
 - a. The unit medical officer is responsible to the commanding officer for implementing all directives issued by the Commandant which relate to the health of members of the command. Additionally, the medical officer shall continually evaluate the command's health care capabilities to fulfill Occupational Medical Surveillance and Evaluation Program (OMSEP) requirements. The command shall execute those procedures it can perform as the Commandant requires. Deficiencies in capabilities shall be made known in writing to the commanding officer with alternative plans for accomplishments recommended.
 - b. Preventive medicine technicians are skilled, highly trained individuals, experienced in preventive medicine. If assigned or available to a unit, that unit shall fully use their services.
3. Preventive Medicine Practices.
 - a. Develop and supervise a definite, adequate environmental health program to prevent disease and maintain the Commandant's established sanitation standards;
 - b. Observe the incidence of disease or disability in personnel and, when indicated, in adjacent communities;
 - c. Use epidemiological methods to determine the cause of such disease, especially when an unusual or high incidence is discovered;
 - d. Recommend measures to minimize or remove the causes of disease; and maintain effective liaison with civilian health agencies; Army, Air Force, Navy, and Public Health Service preventive medicine components; and with other command officers and components.
4. Availability of Consultative Services. Request MLC (kse) for special technical advice, surveys, or investigation through appropriate channels. If unusual conditions or circumstances requiring special attention arise, submit a special report through the appropriate chain of command to Commandant (G-WK).

Section B Communicable Disease Control.

1. General.

a. The health services department representative is responsible for:

- (1) Recognizing communicable diseases;
- (2) Recommending preventive and control measures to the commanding officer;
- (3) Submitting required reports; and
- (4) Complying with state and local health department reporting requirements.

b. The reference documents in this area are:

- (1) *Control of Communicable Diseases in Man*, current edition, American Public Health Association, 1740 Broadway, New York, NY 10019.
- (2) "Medical Environmental Disease Intelligence and Countermeasures" on CD-ROM (DI-1810-207-99, or current version) from Armed Forces Medical Intelligence Center (AFMIC), 1607 Porter Street, Fort Detrick, MD 21701-5004
- (3) Appropriate state and local laws and regulations.

2. Disease Outbreak.

a. An outbreak is the occurrence in the command or surrounding community of a group of similar illnesses clearly in excess of the expected frequency and derived from a common or propagated source (e.g., streptococcal diseases, upper respiratory infections, influenza, etc.). The number of cases indicating the presence of an outbreak varies according to the agent; size and type of population exposed; previous experience or lack of exposure to the disease; and the time and place of occurrence.

b. On recognizing an outbreak the health services department representative shall:

- (1) Inform the commanding officer and recommend preventive and control measures;
- (2) Investigate to determine the source of the agent and how it was spread; and
- (3) Send a Coast Guard intranet e-mail message Disease Alert Report, if the outbreak may:
 - (a) Affect operational readiness;
 - (b) Pose a threat to the community;
 - (c) Pose a threat to another command (e.g., through transfer of personnel); or

- (d) Be of such political or journalistic significance that inquiry might be made of higher commands.
- 3. RCN 6000-4, Disease Alert Report.
 - a. Circumstances Requiring Reports.
 - (1) An outbreak meets any of the criteria above;
 - (2) Any person is diagnosed as having a disease listed in Figures 7-B-1 or 7-B-2;
 - (3) Epizootics of diseases transmissible from animals to man on or near the reporting activity;
 - (4) A Coast Guard vessel or aircraft is quarantined at a foreign port;
 - (5) Health services department personnel deem a condition worthy of reporting; or
 - (6) Conditions legally mandated by local health jurisdiction to be reported.
 - b. Initial Report.
 - (1) If the outbreak/disease is of an urgent nature, submit the initial report by Coast Guard intranet e-mail message to MLC (k) with a copy to Commandant WKH-1.
 - (2) Use the format in Figure 7-B-3 for all Disease Alert Reports.
 - (3) Report to local public health department as required by law.
 - (4) **Log the disclosure to the public health department in the Protected Health Information Management Tool (PHIMT).**
 - c. Progress Reports. Submit progress reports as appropriate to inform the initial report's addressees of progress, change, or other significant developments.
 - d. Final Report (required for outbreaks). Submit to Commandant (G-WKH) through the appropriate chain of command, a final letter report, which must contain this information:
 - (1) Number of disease cases, both total and by hour, day, or week;
 - (2) Numbers of deaths, persons permanently disabled, and staff days lost from work;
 - (3) Causal or contributory factors, including the recent itinerary of vessels, aircraft, and other mobile units;
 - (4) Control measures taken and their effectiveness; and
 - (5) Recommendations to prevent or ameliorate similar future outbreaks.
- 4. Sexually Transmitted Disease Responsibilities.
 - a. Health services department shall provide a coordinated, comprehensive sexually transmitted disease control program including:
 - (1) Educational programs;

- (2) Contact investigation, reporting, and treatment if the contacts are eligible for care; **obtain index patient's HIPAA compliant authorization to disclose the minimum necessary protected health information to contacts**;
 - (3) Completing and submitting Contact Interview Form (Figure 7-B-4);
 - (4) Annotating and maintaining health records properly.
- b. Senior Medical Officer (SMO). The senior medical officer oversees the medical management of the local disease control program; recommends disease control activities to the commanding officer; establishes and maintains liaison with local health authorities to help detect and prevent sexually transmitted diseases (STDs); and ensures confidentiality of contact reports and patients names.
- c. Medical Officer. The practitioner who first sees the patient shall perform diagnostic evaluation procedures. The provider must fill out SF-602, Syphilis Record, on ALL patients diagnosed as having syphilis and file this form in the patient's medical record. Test any patient treated for gonorrhea for syphilis and vice versa, and in both cases, also for HIV antibody. The provider must perform diagnostic evaluations; ensure proper analysis of urethral smears and dark field specimens; and identify organisms from material submitted for culture or serologic test. The syphilis serologic test (RPR, STS) is a general screening test. The FTA-ABS is a specific antibody test that detects *Treponema pallidum*. The medical officer is responsible for noting all STDs using ICD9CM codes on the NAVMED 6150/20.
- d. Health Services Technician or Preventive Medicine Technician. A health services technician or preventive medicine technician assigned to administer the local STD control program should be pay grade E-5 or higher. The HS performs these actions:
- (1) Interviews all STD patients for contact information;
 - (2) After the interview, annotates and signs the SF-600 in each STD patient's medical record to indicate he or she interviewed the patient and discussed symptoms, complications, treatments, and contacts;
 - (3) Instructs gonorrhea patients to return for a Test of Cure (TOC) in five days.
 - (a) Active duty personnel will report to regular sick call for TOC. Place a suspense notice to check with the attending medical officer to ensure the patient receives TOC;
 - (b) Gives dependents and retired personnel regular appointments for local STD control;
 - (4) Completes CDC 73.954, Contact Interview Form, on all STD patients and contacts;
 - (5) The first working day of each week, cross references all positive STDs from the clinic laboratory log book to ensure all STD patients have been contacted and interviewed.

- (6) **Ensures security and confidentiality of all STD forms, reports and logs.**
5. Treatment. Treat STDs according to the most current recommendation of either the Armed Forces Epidemiologic Board or the Centers for Disease Control (CDC), USPHS, published in the Morbidity and Mortality Weekly Report (MMWR), Sexually Transmitted Diseases Treatment Guidelines, as appropriate.
 6. Drug Prophylaxis. Drug prophylaxis for sexually transmitted disease prevention is prohibited.
 7. Reporting.
 - a. Completing a CDC 73.954, Contact Interview Form.
 - (1) Prepare original and three copies as soon as possible after diagnosing a sexually transmitted disease. Figure 7-B-4 is a sample of the form.
 - (2) Execute a separate 4-part form for each contact in cases of multiple contacts
 - (3) Enter these data on the 3rd and 4th copies ONLY:
 - (4) Under "Name," enter also Social Security Number and rate or grade,
 - (5) Under "Home Address," enter also the unit to which the patient is attached.
 - (6) Enter the interviewer's name and unit mailing address on the back of all sheets. The interviewer signs the original.
 - (7) Disposition
 - (a) Within CONUS. The reporting unit retains the green copy on file and sends the original and pink copies to the state where the contact occurred. The reporting unit sends the yellow copy to MLC(k), which acts as the STD control officer for the area. MLC(k) will notify G-WKH-1 upon receipt of the yellow copy. **Log the disclosure to state health authorities in the PHIMT.**
 - (b) Outside CONUS. To report contacts in foreign countries, send the original and pink copies with a transmittal letter to the consular office closest to the contact site to ask that office to send the forms to the proper health authorities. Send the yellow copy to MLC (k) of the unit's home district indicating where the original and pink copies were sent. The reporting unit files the green copy. **Log the disclosure to state health authorities in the PHIMT.**

FIGURE 7-B-1

LIST OF REPORTABLE DISEASES

All of the listed conditions must be reported by CG Intranet e-mail message. Those with an X in the Telephone to MLC (k) column must also be called in to appropriate MLC (k)

NOTIFIABLE CONDITION	Telephone to MLC (k)
AIDS (Acquired Immune Deficiency Syndrome)	X
Amebiasis	
Anthrax	X
Biological warfare agent exposure	X
Botulism	X
Brucellosis (Undulant Fever)	
Campylobacter	
Chancroid	
Chlamydia	
Cholera	
Coccidioidomycosis	
Dengue	
Diphtheria	
Encephalitis	X
<i>Escherichia coli</i> O157:H7	
Food Poisoning (2)	X
Filariasis	
Giardiasis	
Gonorrhea	
Hemolytic uremic syndrome (post diarrheal)	
Hemorrhagic Fever, specify type if known (3)	X
Hepatitis A (Infectious)	X
Hepatitis B (serum)	
Hepatitis C (non-A non-B)	
Herpes, Genital	
HIV Infection – Confirmed positive serology	X
Influenza (1)	
Legionellosis	
Leishmaniasis	
Leprosy (Hansen's Disease)	
Leptospirosis (Weil's Disease)	
Lymphogranuloma Venereum	
Malaria, specify type (3)	X
Measles (Rubeola)	
Meningococcal disease	X
Mumps	

Pertussis (Whooping Cough)	
Plague	X
Pneumococcal pneumonia (1)	
Poliomyelitis, Paralytic	
Psittacosis	
Q-fever	X
Rabies, human	X
Rabies, animal	
Rheumatic Fever (1)	X
Rift Valley Fever	
Rocky Mountain Spotted Fever	
Rubella (German Measles)	
Salmonellosis	
Schistosomiasis	
Shigellosis	
Smallpox (Variola)	X
Syphilis (3)	
Tetanus	
Toxic shock syndrome	
Trichinosis	
Trypanosomiasis	
Tuberculosis (4)	X
Tularemia	X
Typhoid Fever	
Typhus Fever	
Varicella (Active duty only)	
Yellow Fever	
Unusual Clusters if ANY Disease	X

(1) Active duty cases only

(2) Call SMO if 5 or more persons are involved in any similar illness within 24 hour period.

(3) Specify type, if known.

(4) Report also clusters (more than 2) of new PPD converters.

FIGURE 7-B-2

LIST OF REPORTABLE OCCUPATIONAL DISEASES

ICD-9-CM TERM	ICD-9-CM CODE	CMIT SYNONYM/ ANALOGUE	CMIT TEXT	CMIT ID NUMBER	
DUST DISEASES OF THE LUNG					
Coal Workers' Pneumoconiosis	500	Anthracosis	46	03	4678
Asbestosis	501	Asbestosis	62	03	4198
Silicosis	502M	Silicosis	633	03	4626
Talcosis	502M	Pneumoconiosis, Talc	556	03	5935
Chronic Beryllium Disease of the Lung	503M	Beryllium Disease Chronic	77	03	2612
Byssinosis	504	Byssinosis	107	03	4073
POISONING (Systemic Toxic Reactions)					
Hemolytic Anemia, Non-Autoimmune	283.1	Anemia, Hemolytic Acquired, Physical, Chemical Agents	31	05	4225
Aplastic Anemia	284.8	Anemia, Aplastic	29	05	3322
Agranulocytosis Or Neutropenia	288.0	Agranulocytosis	17	05	2863
Methemoglobinemia	289.7	Methemoglobinemia	440	05	3295
Toxic Encephalitis	323.7	Encephalitis, Hemorrhagic, Acute	207	09	4982

PARKINSON'S DISEASE SYNDROME (Secondary)	524	332.1 09	PARKINSONIAN 4071		
Parkinson's Disease (Secondary)	332.1	Maganese Poisoning	424	09-03	5963
Cerebellar Ataxia	334.3	Ataxia, Cerebellar,	64	09	3287
	ACUTE				
Inflammatory and Toxic Neuropathy	357.7	Neuropathy	475	09	2307
Cataract	366.4E	Cataract, Toxic	118	10	4532
Toxic Hepatitis	570 573.3	Hepatitis Chemical-Induced Toxicity	303	06	2008
Acute Renal Failure	584	Kidney, Failure, Acute	367	07	2229
Chronic Renal Failure	585	Kidney Failure, Chronic	367	07	3028
Toxic Effects of Methyl Alcohol	980.1	Methyl Alcohol Poisoning	440	00	1097
Toxic Effects of Gasoline or Petrol	981	Gasoline, Non-Leaded Poisoning	259	00	4355
Toxic Effects of Benzene and Homologues	982.0	Benzene, Poisoning	76	00	1941
Toxic Effects of Carbon Disulfide	982.2	Carbon Disulfide	112	00	1042
Toxic Effects of Solvents Other than Petroleum-based, Other	982.8	Methyl Ethyl Ketone Poisoning	441	00	3427
Toxic Effects of Corrosive Aromatics	983.0	Nitrobenzene Poisoning	482	00	1416
Toxic Effects of	983.0	Aniline Poisoning	44	00	2662

Corrosive Aromatics

Toxic Effects of Corrosive Acids	983.1	Nitric Acid Poisoning	481	00	1255
Toxic Effects of Caustic Alkalis	983.2	Alkali Poisoning	20	00	3087
Toxic Effects of Mercury and its Compounds	985.0	Mercury Poisoning	439	00	5512
Toxic Effects of Arsenic and its Compounds	985.1	Arsenic Poisoning	55	00	2946
Toxic Effects of Arsenic and its Compounds	985.1	Arsine Poisoning	56	00	5897
Toxic Effects of Cadmium and its Compounds	985.5	Cadium Poisoning	107	00-03	5768
Toxic Effects of Other Metals	985.8	Thallium Poisoning	681	00	2910
Toxic Effects of Other Metals	985.8	Silver Poisoning	633	00	4660
Toxic Effects of Other Metals	985.8	Zinc Chloride Poisoning	752	00	3606
Brass-Founders' Ague	985.8	Metal Fume Fever	440	00	5749
Toxic Effects of Carbon Monoxide	986	Carbon Monoxide Poisoning	112	00	3938
Toxic Effects of Other Hydrocarbon Gas	987.1	Methane Poisoning	440	00	3425
Toxic Effects of Chlorine Gas	987.6	Chlorine Poisoning	129	00	3486
Toxic Effects of Gases, Fumes or Vapors	987.8	Oxygen Poisoning	511	00	3825
Toxic Effects of	987.8	Ozone Poisoning	511	00	3104

Gases, Fumes or Vapors

Toxic Effects of Gases, Fumes or Vapors	987.8	Phosgene Poisoning	545	00	3105
Toxic Effects of Gases, Fumes or Vapors	987.8	Toluene Diisocyanate Poisoning	694	00	2770
Toxic Effects of Gases, Fumes or Vapors	987.8	Toluene Poisoning	694	00	2098
Toxic Effects of Gases, Fumes or Vapors	987.8	Acetone Poisoning	6	00	3216
Toxic Effects of Gases, Fumes or Vapors	987.8	Ammonia Poisoning	25	00	5589
Toxic Effects of Gases, Fumes or Vapors	987.8	Carbon Tetrachloride Poisoning	113	00	3192
Toxic Effects of Gases, Fumes or Vapors	987.8	Diobrane Poisoning	181	00	4845
Toxic Effects of Gases, Fumes or Vapors	987.8	Fluorine and Compounds Poisoning, Acute	248	00	4521
Toxic Effects of Gases, Fumes or Vapors	987.8	Fluorine and Compounds Poisoning, Chronic	248	00	2119
Toxic Effects of Gases, Fumes or Vapors	987.8	Hydrogen Sulfide Poisoning	319	00	4331
Toxic Effects of Gases, Fumes or Vapors	987.8	Hydrofluoric Acid Poisoning	319	00	5607
Toxic Effects of Gases, Fumes or Vapors	987.8	Methyl Chloride Poisoning	441	00	5093
Toxic Effects of Gases, Fumes or Vapors	987.8	Methyl Bromide Poisoning	441	00	5404
Toxic Effects of Gases, Fumes or Vapors	987.8	Carbon Dioxide Poisoning	112	00	3107
Toxic Effects of	987.9	Phosphine Poisoning	546	00	2433

Gases, Fumes or Vapors

Toxic Effects of Hydrocyanic Acid Cyanides	989.0	Cyanide Poisoning	161	00	3541
Toxic Effects of Chlorinated Hydrocarbons	989.2	Toxaphene Poisoning	697	00	1926
Toxic Effects of Organophosphate and Carbanate	989.3	Phosphate Ester Insecticide Poisoning	546	00	2457

RESPIRATORY CONDITIONS DUE TO TOXIC AGENTS

Extrinsic Asthma	493.0	Asthma, Bronchial	64	03	4622
Farmer's Lung	495	Farmer Lung	236	03	4418
Bagassosis	495.1	Bagassosis	71	03	2403
Bird Fanciers' Lung	495.2	Bird Breeder Disease	80	03	1458
Suberosis	495.3	Suberosis	664	03	5383
Maltworker's Lung	495.4	Maltowkrer Lung	423	03	5485
Mushroom Workers' Lung	495.5	Mushroom Picker Disease	456	03	4796
Maple Bark Strippers'	495.6	Maple Bark Stripper Disease	425	03	2047
Other Allergic Pneumonitis (Sequoiosis Or Red cedar Asthma)	495.8	Sequoiosis	629	03	2269
Acute Bronchitis Pneumonitis	506.0	Bronchitis, Acute	101	03	2389
Pulmonary Edema To Fumes and Vapors	506.1	Pulmonary Edema	586	03	4190
Other Pneumonitis Due to solids and liquids (detergent Asthma)	507.8	Pneumonia, Extrensic	557	03	5650

DISORDERS DUE TO PHYSICAL AGENTS

Raynaud's Phenomenon (Secondary)	443.0	Vibration Disease	737	04	1428
Cataract Associated With Other Disorders	366.4	Cataract, Heat Ray	117	10	4527
Cataract Associated With Other Disorders	366.4	Cataract, Irradiation	118	10	3538
Noise Effects on Inner Ear	388.1	Hearing Disorder Sensorineural	285	10	5433
Radiation Sickness	990	Radiation, Accidental Reaction	595	10	1287
Heat Exhaustion Unspecified	992.5	Heat Exhaustion	291	00	3421
Heat Exhaustion Unspecified	992.5	Heat Cramp	291	02	1321
Heat Exhaustion Unspecified	992.5	Heat Stroke	292	00	3483
Other and Unspecified Effect Of High Altitude	993.2	Hypoxia	341	00	1890
Dysbarism	993.3	Dysbarism	189	00	3279
Dysbarism	993.3	Decompression Sickness	169	00	4252
Caisson Disease	993.3	Nitrogen, Narcotic Action	482	00	1352
Motion Sickness (from Travel, any Vehicle)	994.6	Motion Sickness	448	00	2357

SKIN DISEASES OR DISORDERS

Contact and Allergic Dermatitis	692	Dermatitis, Contact	173	01	1685
Contact and Allergic Dermatitis	692	Dermatitis Atopic	172	01	2124
Contact and Allergic Dermatitis	692	Dermatitis	172	01	4298

ALL OTHER DISEASES

REPRODUCTIVE DISORDERS

Infertility, Male	606	Sterility, Male	305	07	4761
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OCCUPATIONAL CANCERS

Hemangiosarcoma Of the Liver	155M	Hepatocarcinoma	305	06	3133
Hemangiosarcoma Of the Liver	155M	Vinyl Chloride Poisoning	738	06-02	5437
Mesothelioma (MN of Peritoneum)	158	Ascites, Chylous	62	06	1081
Mesothelioma (MN of Peritoneum)	158	Peritonitis	538	06	4415
Malignant Neoplasm Of Nasal Cavities	160.0	Nose, Carcinoma	483	03	2650
Malignant Neoplasm Larynx	161	Larynx, Carcinoma Extrinsic	382	03	1491
Malignant Neoplasm Trachea, Bronchus and Lung	162	Lung, Carcinoma Bronchogenic	410	03	1647

Mesothelioma (MN of Pleura)	163	Pleura, Mesothelioma, Primary	553	03	3834
Malignant Neoplasm Of Bone	170	Osteogenic Sarcoma	499	02	4950
Malignant Neoplasm Of Scrotum	187.7	Scrotum, Carcinoma Epidermoid	625	07	1490
Malignant Neoplasm Of Bladder	188	Bladder, Carcinoma Epidermoid	81	07	1469
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Kidney, Pelvis, Carcinoma Transitional Cell	371	07	1084
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Kidney, Pelvis, Carcinoma Epidermoid	371	07	1664
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Kidney, Pelvis, Leukoplakia	371	07	1780
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Kidney, Leiomyosarcoma	370	07	2506
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Kidney, Leiomyoma	370	07	3487
Malignant Neoplasm Of Kidney, Other and Unspecified Organs	189	Ureter, Carcinoma	716	07	2821
Lymphoid Leukemia Acute	204	Leukemia, Lymphoblastic	392	05	1922
Lymphoid Leukemia Chronic	204	Leukemia, Lymphocytic Chronic	393	05	3351
Myeloid Leukemia Acute	205	Leukemia, Myeloblastic Acute	393	05	2391

Erythroleukemia	207	Leukemia, Myelocytic	394	05	2363
Erythroleukemia	207	Chronic			
		Leukemia, stem cell	394		

FIGURE 7-B-3

RCN 6000-4, DISEASE ALERT REPORT

Telephone or submit rapidraft with the following information:

1. PATIENT.
 - a. Last Name, First Name, Middle Initial
 - b. Rate/Grade
 - c. Branch of Service
 - d. Social Security Number
 - e. Date of Birth
 - f. Race.
 - g. Sex
2. UNIT ADDRESS.
3. DIAGNOSIS. By ICD-9-CM classification number.
4. CLINICAL HISTORY.
5. LABORATORY TEST DONE, IF ANY, AND RESULTS.
6. TREATMENT AND PROGNOSIS.
7. EPIDEMIOLOGY INFORMATION. Provide all information of epidemiological significance to the case (e.g., contacts, prior treatment, immunizations, etc.)
8. COMMUNITY THREAT.
9. POINT OF CONTACT.
10. REPORTING. List other agencies (e.g., State health departments) notified of the case.

Section C Immunizations

1. General. Immunizations and Chemoprophylaxis, COMDTINST M6230.4 (series), lists policy, procedure, and responsibility for immunizations and chemoprophylaxis. This section contains guidelines not specifically defined there.
2. Unit Responsibilities.
 - a. Active duty and reserve unit commanding officers are responsible for immunizing all individuals under their purview and maintaining appropriate records of these immunizations. If local conditions warrant and pertinent justification supports the cognizant MLC may grant authority to deviate from specified immunization procedures on request.
 - b. Unit commanding officers will arrange local immunizations for their unit's members. If this is not possible, he or she will request assistance from the Coast Guard Medical Treatment Facility overseeing units in the geographic area.
3. Equipment and Certification Requirement.
 - a. All immunization sites must have the capability to administer emergency medical care if anaphylaxis or other allergic reactions occur. A designated Coast Guard medical officer must certify the registered nurse or HS selected to administer immunizations is qualified to do so because he or she has received instruction and displayed proficiency in these areas:
 - (1) Vaccine dosages;
 - (2) Injection techniques;
 - (3) Recognizing vaccine contraindications;
 - (4) Recognizing and treating allergic and vasovagal reactions resulting from the vaccination process;
 - (5) Proper use of anaphylaxis medications and related equipment (e.g., oxygen, airways; and
 - (6) Verification the individual is currently certified in Basic Cardiac Life Support (BCLS).
 - b. The immunization site must have available: syringes with 1:1000 aqueous solution of epinephrine, emergency airways, oxygen, hand operated resuscitator, and intravenous (IV) fluids with an IV injection set.
4. Immunization Site Responsibilities.
 - a. Where available, a medical officer shall be present when routine immunizations are given.

- b. In the event a medical officer cannot be present, a registered nurse or HS3 or above can be certified to administer the immunization process of active duty and reserve personnel when the following guidelines and procedures are met:
- (1) The designated Coast Guard medical officer who normally would oversee their independent activity must train and certify in writing registered nurses and HSs conducting immunizations in a medical officer's absence.
 - (2) An emergency-equipped vehicle must be readily available to transport patients to a nearby (within 10 minutes) health care facility staffed with an ACLS-certified physician or an EMS with ACLS capability must be within a 10-minute response time of the site.
 - (3) Hypovolemic shock often is present in cases of anaphylaxis. Therefore medical personnel must be ready and able to restore fluid to the central circulation. In anaphylaxis treatment, epinephrine administration, airway management, summoning help are critical steps toward the treatment of this condition.
- c. The individual(s) administering the immunizations shall review the SF-601(Immunization Record) and PHS-731 (International Certificate of Vaccination) for each unit member to be immunized. Only a medical officer has authority to immunize persons sensitive to an immunizing agent. The unit health record custodian or HS will ensure proper entries are made on each immunize person's SF-601 and PHS-731.
- d. In some clinical situations, the medical indication may be to immunize even though the circumstances above cannot be met (e.g., tetanus toxoid for wound prophylaxis, gamma globulin for hepatitis A exposure, etc.). Such incidents commonly occur at sea and remote units or during time-sensitive situations (SAR, etc.). If the medical benefits outweigh the chance of a serious allergic reaction, take every available precaution possible, and administer the vaccine. When available, obtain radio, telephone, or message advice from the Medical Officer.
- e. If an adverse reaction to a vaccine is suspected, the facility shall notify the Vaccine Adverse Event Reporting System (VAERS) using form VAERS-1. Obtain this form from the FDA by calling 1-800-822-7967. Units providing vaccinations shall maintain a supply of these forms. A copy of each submitted VAERS-1 will be forwarded to G-WKH. **Log the disclosure to VAERS in the PHIMT.**
- f. Every health care provider who administers vaccines shall provide a Vaccine Information Sheet (VIS) if available from the Centers for Disease Control and Prevention (CDC). As of 1 Feb 2002, the following VIS's are available: diphtheria, tetanus, pertussis (DTaP); diphtheria, tetanus (Td); measles, mumps, rubella (MMR); polio (IPV); hepatitis B; haemophilus influenza type b (Hib); varicella; pneumococcal conjugate; influenza; hepatitis A; pneumococcal polysaccharide; meningococcal; lyme disease; and anthrax. This list includes vaccines covered by the National Childhood Injury Act, as well as several others. The VISs are available

from the CDC, National Immunization Hotline, at telephone number (800) 232-2522 or at <http://www.cdc.gov/nip/publications/VIS/default.htm>.

- g. Per the National Childhood Vaccine Injury Act (NCVIA) of 1986, health care providers are not required to obtain the signature of the vaccine recipient, parent or legal guardian acknowledging receipt of the VIS. However, to document that the VIS was given, health care providers must note in the patient's permanent medical record (1) the date printed on the VIS and (2) the date the VIS is given to the patient or legal guardian. In addition, the NCVIA requires, for all vaccines, that health care providers document in the patient's permanent medical record the following: (1) date the vaccine was given, (2) the vaccine manufacturer and lot number and (3) the name and address of the health care provider administering the vaccine. For all beneficiaries, the health care provider will make a notation on the SF-600 stating that the vaccine recipient or legal guardian/representative has been given information on the vaccine(s) prior to the vaccine(s) being given, if applicable. For all vaccines, facilities administering vaccines must record in the recipient's health record, and, in the service member's International Certificate of Vaccination (PHS-731), the manufacturer and lot number of the vaccine, and the name, address and title of the person administering the vaccine.

5. Immunization on Reporting for Active Duty for Training.

- a. When a member reports for active duty for training, the receiving unit shall review the individual's SF-601 and PHS-731 for completeness, administer any delinquent immunizations whenever possible, enter on SF-601 and PHS-731, and return these to the individual when active duty for training terminates.
- b. The individual's Reserve unit shall give the member a re-immunization schedule for the following year if one is needed for that period.

Section D Tuberculosis Prevention and Control Program

1. Introduction.

- a. Description. Tuberculosis (TB) is an infectious disease transmitted from person to person by very small (1-5 microns) particles called droplet nuclei, which can remain suspended in any indoor air space for long time periods. An individual with active pulmonary tuberculosis propels droplet nuclei into the air by coughing, speaking, or sneezing. They also can be produced by manipulating tuberculous lesions or discharging infected secretions. Inhaling droplet nuclei can carry them to the lung alveoli, where the bacteria suspended in the particles can multiply, causing a pulmonary infection.
- b. Problem. In the United States, reported cases of tuberculosis declined steadily until 1984. Since then, however, the disease has unexpectedly rebounded in this country. Many experts agree this resurgence is due at least partially to a deterioration in the infrastructure of our health care delivery system. An additional concern is the domestic increase of drug-resistant forms of tuberculosis, resulting in increased costs, longer duration of treatment, and higher mortality rates.
- c. Purpose. This section prescribes policy and procedure to ensure Coast Guard members can conduct their mission without undue risk of tuberculosis transmission and, further, the highest quality medical follow-up for those infected with the disease.
- d. Definitions.
 - (1) Active Case. A person who has a clinical disease demonstrated by radiograph (x-ray) and culture or signs and symptoms of extrapulmonary TB. This term does not include a person whose only finding is a positive skin test.
 - (2) Casual Contact. A person acquainted with an individual with active tuberculosis who has spent some time with the infected person in a possibly contagious, though brief, situation.
 - (3) Clinically Significant Exposure. An exposure to someone with active tuberculosis which could be expected to result in transmitting the infection. This generally means repeated, close contact with a person with active pulmonary TB, particularly when in a confined environment such as a room or residence, such as family members who share the same household as persons with TB or health care workers who routinely care for TB patients.
 - (4) Close Contact. A person who has spent extended periods of time with a person who has active tuberculosis, especially in enclosed spaces, e.g., living in the same household.
 - (5) Contact. A person who has had some association with an active case .

- (6) Edema. The escape of a fluid, usually serous (pertaining to the watery part of the blood) fluid, from its natural vessel into body tissues or cavities. Soft tissue edema causes pitting.
- (7) Erythema. An area of abnormally red skin due to inflammation.
- (8) Fomites. Any materials, including clothing or bedding, capable of absorbing and spreading a disease's infecting organism.
- (9) High-Risk Groups. Defined groups of persons among whom the prevalence and incidence of tuberculosis is substantially higher than the general population.
- (10) Induration. A firm, hardened, usually raised area of soft tissue congestion; erythema may or may not be present. Must be distinguished from edema by the absence of pitting.
- (11) Mantoux Test. An intracutaneous (within the skin) test for tuberculin sensitivity, using a purified protein derivative (PPD) of tuberculin.
- (12) MDRTB. Multiple drug resistant tuberculosis.
- (13) *Mycobacterium tuberculosis*. The organism that causes tuberculosis disease.
- (14) Positive Skin Test Reaction. See 3.C.(2).(f).
- (15) Pulmonary. Referring to the lungs. The most common and most infectious form of TB occurs in the lungs (pulmonary TB), but many other parts of the body can be sites of infection.
- (16) Tuberculin Conversion/Converter. A TST reaction that has increased from what is considered non-reactive to reactive within two years. Both reactions must be documented.
- (17) TB. Tuberculosis, a communicable disease of humans and animals caused by the *Mycobacterium tuberculosis* microorganism, manifesting itself in lesions of the lung, bone, and other organs.
- (18) TST. Tuberculin Skin Test, a test based on a hypersensitivity-type immune reaction to tuberculin. The test is used to determine past or present infection from *Mycobacterium tuberculosis*.
- (19) Tuberculin. A substance derived from *Mycobacterium tuberculosis* cultures used to diagnose tuberculosis.
- (20) Tuberculin Non-reactive/Non-reactor. A TST reaction which is too small to be considered evidence of infection. (See Figure 7-D-1). Sometime imprecisely referred to as a "negative" test.
- (21) Tuberculin Reactive/Reactor. A TST reaction considered evidence of infection. (See Figure 7-D-1). Sometimes imprecisely referred to as a "positive" test.
- (22) Vesiculated. Having small, blister-like, fluid-filled sacs or cysts.

- e. Program Summary. The Tuberculosis Prevention and Control Program consists of four parts: the TB screening and contact investigation programs, personal protective measures and patient management.
- 2. Tuberculosis Screening Program. The program is intended to identify both persons who have only been infected by *Mycobacterium tuberculosis* and those who have active, clinical disease. The former may benefit from preventive therapy, and the latter from treatment.
 - a. Type of testing: Different testing procedures are used:
 - (1) Tuberculosis Skin Testing. The Purified Protein Derivative (PPD) is the primary method for routine TB screening. It is used for individuals with previously non-reactive, doubtful, or unrecorded skin tests.
 - (2) Chest Radiograph. This method is if active TB is suspected in persons with a previously reactive tuberculin skin test (TST). Routine periodic chest radiographs will generally not be performed.
 - b. Summary of Testing Procedures. At a minimum, TB screening is required when a person enters military service and during periodic physical examinations. A medical officer or this manual describe when to test more frequently.
 - c. When to Test Personnel.
 - (1) Initial Tuberculosis Screening. A PPD is mandatory in the physical examination of any person entering initial active duty for 30 days or more and any other active duty member whose records contain no report of a completed tuberculin test.
 - (2) Screening Personnel at Low Risk of Exposure.
 - (a) Tuberculin Non-reactive Personnel. All active duty personnel whose last recorded reaction was recorded as non-reactive at a minimum must have a PPD during their quinquennial physical examination.
 - (b) Tuberculin Reactive Personnel. All personnel whose last recorded TST reaction was considered reactive receive chest radiographs only when previous medical follow-up has not been done and properly documented in the individual's health record, or when a medical officer deems it clinically indicated. All TST reactors or their medical records must be medically reviewed annually to screen for indicators of active disease.
 - (3) Screening Personnel at Increased Risk of Exposure.
 - (a) Tuberculosis Non-reactive Personnel. Personnel whose last recorded TST reaction was considered to be nonreactive and who are at increased risk of TB, such as health care workers, will be skin tested annually, usually during routine immunizations. EMT or law enforcement and other personnel, in addition to testing at their quinquennial physical

examination, will be tested after clinically significant contact with high risk groups (e.g., following interdiction of and prolonged, confined contact with migrants who have signs of active tuberculosis). (COMDTINST M6220.9 (series) provides more information regarding tuberculosis and AMIO, but this instruction is the definitive guidance on frequency of testing.)

- (b) Tuberculin Reactive Personnel. Personnel whose last recorded TST was considered reactive will receive chest radiographs or sputum smear examinations only when a medical officer deems necessary.
- (4) Separation from Service. Those individuals whose last test was nonreactive shall have a PPD as part of their separation process. A chest radiograph will be done for a separation physical only if the individual has a confirmed positive PPD. Results of the PPD or chest radiograph must be evaluated and recorded in the health record prior to separation.

d. Testing Procedures.

(1) Tuberculin Skin Test Materials.

- (a) Tuberculin, Purified Protein Derivative (PPD). The only approved tuberculin skin test material for a routine Mantoux test is premixed Tween-80-stabilized intermediate strength PPD (5 Tuberculin Units (TU) equivalent). Multiple puncture tuberculin tests (e.g., Tine tests) are not authorized. A medical officer can direct using first-strength PPD (1 TU) when a person has a verbal or questionable history of a reactive TST but no documentation of such.
- (b) Syringes and Needles. The disposable 1 ml tuberculin syringe graduated in 0.1 ml intervals and fitted with a 25-gauge 5/8-inch needle is a convenient combination for administering the PPD.

(2) Tuberculin Skin Test Methods.

- (a) Personnel Authorized to Perform the Tuberculin Test. Only trained health services personnel are authorized to perform PPDs. The local medical authority shall verify they are competent to administer and read the PPD.
- (b) Techniques. Following aseptic preparation of the skin, an intradermal injection of 0.1 ml of the tuberculin solution shall be made upon the volar aspect of the left forearm. The point of the needle should be visible just within the dermis, beneath the outer layers of the epidermis. The results should be a definite wheal, pale and sharply demarcated. Be careful to avoid subcutaneous or epidermis injection. If it is recognized that the first test was improperly planted, another test dose can be given at once, selecting a site several centimeters away from the original

- injection. A note in the record should indicate the site chosen for both the first and second tests.
- (c) Documentation. Document the PPD test in the SF-601 under Sensitivity Tests with the date tested. Do not record results until the actual time of reading.
 - (d) Two-Step TST. Because of delayed hypersensitivity, an adult who has never been skin tested and will receive periodic skin testing should receive two-step skin testing to distinguish boosted reactions from reactions due to new infection. Persons in this category include new accessions to the Coast Guard (officer and enlisted). In such cases consult a medical officer for procedure.
 - (e) Measuring and Recording Results.
 - 1 After an interval of between 48 and 72 hours examine the PPD site. Classify injection response according to the extent of the induration (not erythema or edema) measured in millimeters (mm) at the widest diameter transverse to the long axis of the forearm.
 - 2 When reading the PPD, the forearm should be in good light and flexed a little at the elbow. Lightly pass a forefinger over the test area. The induration can be felt even when it does not produce a visible elevation. For those skilled in its use, the pen-tracking method is both authorized and more accurate. To measure, mark induration borders with a ball-point pen.
 - 3 To record the result, enter by hand this information under Sensitivity Tests on SF-601 and PHS 731: date, type of tuberculin, its strength or dilution (e.g., PPD 5 TU), and the resulting diameter of induration expressed in millimeters. Report absence of induration as "zero mm." If induration is present, use Arabic numerals to record the widest diameter. A sample entry is: "17 SEP 86 PPD (5TU) 6mm induration." Also measure and record any vesiculation. In red ink record the result indicating a PPD converter on the Sensitivity Sticker (section 4-B-2) and the Problem Summary List (section 4-B-3). Using rubber stamps or automatic imprinting devices to record results or recording results as "negative" are both prohibited.
 - 4 A medical officer must evaluate grossly vesiculated reactions. Warn the person about possible secondary bacterial infection from scratching the reaction.
 - (f) Failure to Return for Skin Test Reading. Personnel who do not return at the proper time to have the skin test interpreted must be retested. Do not

under any circumstances record the PPD as "zero mm" if the person does not return within the prescribed time frame. Each time a person fails to return for timely reading, document the SF-601 with "no reading done" and the date.

- (g) **Interpreting Skin Test Readings.** Consider a skin test reactive according to Figure 7-D-2.

Figure 7-D-2

Size of Induration	Considered Reactive for
Reactions < 5mm are considered non-reactive	
5 mm	<ul style="list-style-type: none"> • Persons with HIV infection or risk factors for HIV infection but unknown HIV status; • Persons who have had recent close contact with persons who have active TB; • Persons who have fibrotic chest radiograph consistent with healed tuberculosis; • Patients with organ transplants and other immunosuppressed patient.
10mm	<ul style="list-style-type: none"> • Injecting drug users known to be HIV seronegative; • Persons with other medical conditions with reported increased risk for progressing from latent TB infection to active TB. These medical conditions include diabetes mellitus, chronic renal failure, some hematologic disorders and other malignancies, weight loss of $\geq 10\%$ below ideal body weight, silicosis, gastrectomy, and jejunioleal bypass;) • Residents and employees of high-risk congregate settings: prisons, long-term care facilities, health-care facilities, and homeless shelters; • Some medically underserved, low income populations, including migrant workers and homeless persons; • Foreign-born persons recently arrived (i.e., within the last five years) from countries with a high TB prevalence; • Children < 4 years of age, any child or adolescent exposed to adults in high-risks categories.
15mm	<ul style="list-style-type: none"> • Persons who meet none of the above criteria.

- (3) **Chest Radiographs.** Those individuals who have been determined to need a chest radiograph will have a standard, erect posteroanterior view. A medical officer may determine other appropriate views.

e. Responsibility for Local Program Management.

- (1) The command holding affected persons' health records is responsible for monitoring health records and managing local skin testing and chest radiograph programs.
- (2) The activity maintaining the health record assures the tuberculin skin test status is clearly and properly documented on SF-601 and PHS-731 Immunization Records of each active duty member's health record; the activity also must clearly, properly record tuberculin reactors' chest radiograph status on SF-600, Chronological Record of Medical Care, and NAVMED 6150/20, Problem Summary List. Further, the activity is responsible for initiating tests for persons whose health records do not contain appropriate, timely entries.

3. Tuberculosis Contact Investigation Program.

a. Contact Investigation Procedures. On discovering a case of active TB in a command, take these actions:

- (1) Submit a Disease Alert Report. (See Figure 7-B-2, and 7-B-3).
- (2) Determine the patient's close contacts.
- (3) Screen or give these contacts a TST test for TB and repeat the screening 3, 6, 9, and 12 months later.
- (4) Report summary results of the investigation to Commandant (G-WKH) through the appropriate chain of command.
- (5) Evaluate possible secondary cases.
- (6) **Report as required by law to the appropriate public health authorities. Log this disclosure in the PHIMT.**

b. Initiating a Contact Investigation. Initiate a contact investigation when notified a member of the command has diagnosed active PMTB or when a medical officer so requests.

c. Performing a Contact Investigation.

- (1) Conducting an investigation
Initial Investigation of Contacts. Each person who is a close contact of an known case of active, infectious tuberculosis shall undergo a screening examination for TB. Those personnel who are previous tuberculin reactors, and do not have a document of appropriate medical follow-up, or have signs of PMTB, shall receive a chest radiograph [unless otherwise contraindicated, see 7-D-4.b.(5)(c)]. All other contacts shall receive a PPD. Individuals identified to be close contacts who are not eligible for health care through the Coast Guard should be referred to the local public health department or private medical facility of choice.
 - (a) Establishing Limits for Contact Investigations. The infectiousness of a source case is determined by first evaluating close contacts for evidence of new infection or disease. If there is no evidence of infection in this

group no further investigation is necessary. Remember that TB is a slow progressing disease and initial screening results should only be interpreted as baseline information if it is determined that the source case may have a recent infection or disease. If there is evidence of infection in close contacts (as determined after an appropriate time-lapse), extend the investigation to progressively lower-risk contacts, e.g., casual or other contacts. This should proceed until the levels of infection detected approximate the levels of infection in the local community. NOTE: If a newborn or an immunocompromised person (e.g., HIV infected person) is identified as a close contact, they should be evaluated for prophylaxis per current Centers for Disease Control and Prevention Guidelines. Figure 7.D.3 shows a decision tree for establishing contact limits.

(2) Determining Close Contacts.

- (a) Active Tuberculosis at a Shore Facility. The local medical officer must classify a TB patient's "close contacts" at a shore facility, generally including all those sharing the same berthing facilities, in close contact during duty hours, regular liberty mates, and the patient's cohabitants. Consult the appropriate MLC (k) for advice in specific instances.
- (b) Active Tuberculosis Aboard a Cutter. When a case of active TB is discovered aboard the cutter the entire ship's company shall be considered close contacts included in the contact investigation.
- (c) Other Situations. Commands or activities in which exceptionally close conditions occur, such as isolated duty stations, shall follow the procedures listed for cutters.

(3) Follow-up Investigation of Contacts.

- (a) Follow-up Period. Follow up tuberculosis contacts for 12 months (see paragraph 5.a.(3)). Record follow-up results on an SF-600 in each contact's medical record. Take particular care to record all items before an involved member from the command transfers.

4. Protective measures

- a. General. Depending on the level, nature, and intensity of exposure, a person's risk of TB infection can be reduced. Tuberculosis spreads almost exclusively by airborne transmission from persons who have active pulmonary TB. The risk of infection is negligible for those who have casual or brief contact with high-risk persons, particularly if exposure occurs in an open space. Special personal protective equipment, e.g., masks, gloves, or gowns, is not required for routine limited contact in such a setting.
- b. Respiratory protective devices (RPD).

- (1) RPDs may be warranted if TB exposure is longer or more intense. Coast Guard personnel will comply with guidelines established by the Centers for Disease Control and Prevention (CDC), the National Institute of Occupational Safety and Health (NIOSH), and pertinent Coast Guard directives, e.g., COMDINST M6260.2 (series), governing using RPDs or other personal protective equipment.
 - (2) Surgical masks do not filter small enough particles to protect a wearer from TB infection, and must not be used for this purpose. However, surgical masks can help contain infectious droplets from the infected person, and when worn by this person, may reduce the risk of passing the infection.
 - (3) The minimum RPD for wearer safety is a NIOSH-approved, high-efficiency particulate air (HEPA) respirator. Respiratory protective devices must fit and be worn correctly to be effective. Technical Guide: Practices for Respiratory Protection, COMDTINST M6260.2 (series), describes how to evaluate, fit, and train persons to wear RPDs to protect against TB transmission.
- c. Air Circulation. At least 6 air exchanges per hour (ACH) are required to reduce concentrations of droplet nuclei in the air in an enclosed space requires; higher ACH rates eliminate more bacteria. If possible 12 ACH or more is recommended. Recirculated air should filter through fixed HEPA filters. Fresh or filtered air should be provided in optimum airflow patterns that prevent stagnation.
- d. Handling High-Risk Populations. When transporting or otherwise in a confined space with a person known or suspected to have active TB, take these precautions:
- (1) If he or she can tolerate one, have the patient wear a mask.
 - (2) Take measures to increase airflow within the enclosed space. Vent air to the outside whenever possible.
 - (3) Avoid unnecessary close contact with the patient.
 - (4) Separate suspected TB cases from others if conditions permit.
 - (5) Emergency Medical Technicians (EMTs) should wear HEPA respirators when working with persons demonstrating clinical signs of TB.
 - (6) Consult competent medical authority to determine if specific circumstances warrant HEPA mask use.
5. Managing Personnel with Reactive Tuberculin Tests or Suspected TB.
- a. Evaluation for Tuberculosis.
- (1) Personnel Requiring Evaluation. As soon as possible evaluate persons who meet any of these criteria for the presence of active tuberculosis:
 - (a) Tuberculin reactor on initial testing.
 - (b) Tuberculin skin test converter.

- (c) Close contact of an active case of TB who develops a TST reaction $\geq 5\text{mm}$.
 - (d) Previous tuberculin reactor but never evaluated for active TB.
 - (e) Previous tuberculin reactor, now with suspicious chest radiograph findings.
 - (f) Anyone with history, signs, symptoms, or laboratory tests suggesting TB.
- (2) Initial Examination. Persons listed in Paragraph 4.a.(1) will have a medical history, physical examination and chest radiograph.
 - (3) Further Examination. A medical officer or a civilian physician must evaluate more thoroughly those individuals whose findings suggest active TB.
- b. Managing Tuberculin Reactors Without Evidence of Active TB.
- (1) Personnel evaluated and found not to have active TB will be considered for preventive therapy according to Figure 7-D-3. Prophylaxis is intended to prevent latent infections from progressing to clinically active disease.

Figure 7-D-3

Age	Induration Size	Risk Factor
Any Age	$> 5\text{mm}$	Known or suspected HIV infection Close contact with newly diagnosed active TB Previously untreated or inadequately treated persons with chest radiographs showing fibrotic lesions compatible with old healed tuberculosis. If diagnosis is doubtful after consulting with a medical officer, administer a booster TST
	$> 10\text{mm}$	Injecting drug users Persons with medical conditions reported to increase tuberculosis risk including silicosis; gastrectomy; jejunioileal bypass; weight 10% or more below ideal body weight; chronic renal failure; conditions requiring prolonged high-dose corticosteroid therapy or other immunosuppressive drugs; some hematologic disorders (leukemia and lymphomas); and other malignancies
Under 35	$> 10\text{mm}$	Foreign-born persons from high-prevalence countries including those in Asia, Africa, Central and South America, and eastern Europe Residents of correctional facilities
	$> 15\text{mm}$	No risk factors, but not previously treated

Recent TST converters		
Under 35		> 10mm <i>increase</i> within a 2 year period
Over 35		> 15mm <i>increase</i> within a 2 year period
Previously known (old) tuberculin reactor not properly evaluated in the past or who did not complete appropriate preventive therapy		
Under 35		If risk factors and induration sizes listed above are present
Over 35		Generally not a candidate for INH unless specific risk factors for active disease are present

Note: A previously known tuberculin reactor may be treated without repeat testing if a properly documented tuberculin TST result is in the medical record. If a person gives an undocumented history of a tuberculin reaction and INH prophylaxis may be indicated, a first strength PPD (1 TU) may be administered under the direction of a medical officer, to confirm the reported reaction.

- (2) Initial Evaluation for Prophylaxis. Before initiating a course of prophylaxis a medical officer must evaluate the person as follows:
 - (a) An appropriate history and physical examination.
 - (b) Chest radiograph for newly identified tuberculin reactors, unless otherwise contraindicated. Give one to previously known reactors only if no documents exist of proper medical evaluation with radiograph at time of reactive TST or if clinically indicated.
 - (c) Baseline liver function tests (LFT), including AST, ALT, LDH, total bili, and GGT, and a CBC.
 - (d) Perform HIV antibody testing on all newly identified active duty tuberculin reactors. Query civilian employees and dependents with newly-identified reactive TSTs about HIV risk behaviors. Counsel persons with HIV risk factors and offer them an HIV serological screening test.
 - (e) Review conditions that may contraindicate prophylaxis as follows: pregnancy, breast feeding, ETOH abuse, known sensitivity to the agent, peripheral neuropathy, IV drug abuse, acute or chronic liver disease, therapy with medication with a potential for significant interaction (Tegretol, phenytoin, etc.). If any of these conditions exist, the provider must decide whether to initiate prophylaxis, weighing therapeutic risks and benefits.
- (3) Prophylaxis. Recommended regimens are listed in Figure 7-D-4. There are other considerations not listed in the Figure for HIV infected persons.

Figure 7-D-4

Drug	Interval and Duration	Comments
Isoniazid (INH)	Daily X 9 Mo ^{1,2}	In HIV-infected patients, INH may be administered concurrently with NRTIs or NNRTIs.
	2X Weekly X 9 Mo ^{1,2}	Directly observed therapy (DOT) must be used.
INH	Daily X 6 Mo ²	Not indicated for HIV-infected persons or those with fibrotic lesions on chest X-ray.
	2X Weekly X 6 Mo ²	DOT must be used.
Rifampin plus pyrazinamide	Daily X 2 Mo	May also be offered to persons who are contacts of patients with IHN-resistant, rifampin-susceptible TB; In HIV-infected patients protease inhibitors or NNRTIs should generally not be administered concurrently with rifampin.
	2X Weekly X 2-3 Mo	DPT must be used
Rifampin	Daily X 4 Mo	For persons who cannot tolerate pyrazinamide.

Notes: ¹Recommended regimen for children younger than 18 years of age.

²Recommended regimen for pregnant women.

- (a) Supervision. Persons whose risk of developing active TB is high and whose compliance is questionable may require directly observed therapy (DOT).
- (b) (b) Monitoring. Appropriately trained personnel must monitor persons taking INH monthly for the first two months and at least every two months thereafter. Follow persons 35 and older monthly for the first three months. Initially dispense a maximum of one month's supply of medication and up to two months' supply thereafter to coincide with follow-up visits. If signs or symptoms of toxicity appear, discontinue INH immediately; a medical officer should reevaluate. Prophylaxis should not be prescribed if periodic monitoring cannot be done. Monitoring consists of:
 - 1 Reviewing significant symptoms of INH side effects: fever, rash, jaundice, fatigue, anorexia, dark urine, joint pain, paresthesia of hands, feet, or eyelids.
 - 2 Obtaining follow-up LFTs as follows:

One month after instituting INH; then at least at three month intervals for all individuals.

At 1, 2, 3, and 5-6 months (8-10 month interval for those with a one-year course) for all persons 35 and older.

If evidence of possible reaction to therapy occurs.

- -
 - c.

Patient Education. The health services representative must ensure the patient understands the meaning of the skin test result or TB exposure, INH chemoprophylaxis hazards (hepatitis, drug fever, severe rash, etc.) and benefits, the warning signs of the drug's potential side effects; and the danger of alcohol consumption while taking INH. The necessity for faithful adherence to the course of treatment, in the absence of side effects, cannot be too strongly stressed. A notation of the counseling offered shall be made on an SF-600 in the medical record.

 - d.

Persons Leaving the Service While on Chemoprophylaxis.

 - (1) Members who retire prior to completing chemoprophylaxis shall be advised that continued treatment is necessary and may be obtained at most Uniformed Services Medical Treatment Facilities.
 - (2) Members who are discharged or released to inactive duty prior to completing Isoniazid chemoprophylaxis shall be advised of the importance of continuing the program. Care may be provided by the Veterans Administration, county health department, private physicians, etc. To facilitate follow-up, personnel shall be provided with a statement signed by a medical officer containing the date treatment began, the type and dosage of prescribed medications, course of therapy, and the present status. At a minimum, the local Health Department where the individual plans to reside should be notified.
 - (3) A medical board or limiting duties is not indicated for those with no evidence of active disease except as noted in paragraph 4.b.(6) regardless of the status of preventive therapy.
 - (4) Special Situations and Procedures.
 - a) Exposure to Drug-resistant TB. Consult with CDC or a state health department before starting prophylaxis for persons known to be exposed to patients with drug-resistant strains of TB.
 - b) Children. A pediatrician or medical officer with training in pediatrics must follow children receiving TB prophylaxis.
 - c) Pregnant Women. Complete the same initial procedures for adults except DO NOT PERFORM A RADIOGRAPH unless an actual clinical indication of pulmonary disease exists. Consult the patient's obstetrician. Generally, defer treatment until after delivery or breast feeding. Place

the patient's name in a "tickler" so that she can be contacted upon termination of pregnancy.

- (d) Child Care Workers. Child care workers must receive annual PPDs or medical evaluations, as appropriate.
- (5) Aviators.
 - (a) Personnel on flying status shall be grounded for the first seven days of chemoprophylaxis because of the slight risk (less than 1%) of convulsions among persons taking INH. At the end of seven days of treatment, flight surgeon must be consulted to return the member to flying status.
 - (b) A flight surgeon shall evaluate aviators receiving INH monthly to carefully brief the individual about possible adverse reactions.
 - (c) Aviation personnel should be considered for grounding if, at any time during treatment, liver function test are significantly abnormal or symptoms of liver dysfunction appear.
- e. Managing Suspected Cases of Active TB. When a patient is evaluated and suspected of having TB:
 - (1) Submit a Disease Alert Report (see Figure 7-B-2).
 - (2) Expeditiously refer the patient to the nearest USMTF, including those initially admitted to civilian medical facilities. If at all possible, refer before beginning definitive treatment.
 - (3) Initiate contact tracing.
 - (4) Decontaminate spaces (see Paragraph 7-D-7).
- f. Reporting Requirements. The health services division chief of the medical treatment facility where the diagnosis of active TB is suspected or established, shall notify the patient's commanding officer within 48 hours. The notification shall include the date that the diagnosis was established or suspected and the probability that the patient is infectious. If, in the case of suspected active TB, the diagnosis of TB is subsequently ruled out, a message to that effect must be sent to both the patient's commanding officer and to the address of the Disease Alert Report, immediately.
 - (1) Follow-up Procedures. The command investigating TB contacts shall maintain a "tickler" file or similar effective system to assure prompt evaluation of persons requiring periodic examination and testing. Medical evaluations and other indicated procedures are an appropriate part of the periodic examination.
 - (2) Completing Follow-up. When the 12 months expire, those individuals whose tuberculin response or chest radiograph were unchanged shall revert to routine program screening.

- (3) Separated Members. Contacts separated from the Coast Guard shall be counseled regarding the need for medical evaluation and the appropriate referrals made.
- (4) Managing Tuberculin Converters or Possible Cases. Those individuals found to have “converted” or who developed changes on a chest radiograph shall be evaluated as outlined in Section 7-D-4 of this manual. Close contacts who increase the size of induration on a TST, even though the reaction is still considered nonreactive, should also be considered for evaluation.
- (5) Secondary Cases. If a subsequent active TB case is discovered among the contacts, it is not necessary to begin an entirely new investigation. However, start contact studies on any personnel exposed to the secondary case not tested in the original investigation.

g. Responsibility for Managing the Contact Investigation Program.

- (1) The commanding officer of the permanent duty station of a person diagnosed with active TB shall initiate the contact investigation. If the individual has a permanent change of station during the preceding year, the commanding officer of the former duty station shall be notified to initiate a contact investigation if determined appropriate by the medical officer or civilian physician making the diagnosis. If assistance is required contact the appropriate MLC (k).
- (2) The commanding officer of any activity is responsible for successfully continuing or completing contact studies under way among members assigned to or transferred to the unit. Additionally, the commanding officer shall ensure:
 - (a) The records of members transferred from the unit while undergoing contact studies are complete (including radiographs) so the member’s gaining unit can continue the studies.
 - (b) Prompt submission of the summary letter report on the tuberculosis contact investigation to Commandant (G-WKH) through the chain of command.

h. Reporting Requirements. The command initiating the contact investigation shall prepare and submit study summaries to Commandant (G-WKH) with a copy to the appropriate MLC (k). Submit progress summary reports and the final RCS-G-K-13012, Disease Alert Report, with this information:

- (1) Unit identification.
- (2) Source case(s)’s name, grade, rate, and Social Security Number .
- (3) Status of investigation, e.g., initial, 3-, 6-, 9-, or 12-month summary reports.
- (4) For each reporting period provide:
 - (a) Number of tuberculin non-reactive individuals skin-tested.

- (b) Number of skin-tested tuberculin non-reactive persons found to be converters.
- (c) Number of tuberculin-reactive individuals receiving chest radiographs.
- (d) Number of tuberculin-reactive persons found to have suspicious changes on the chest radiograph.
- (e) Number of contacts placed on or receiving isoniazid chemoprophylaxis.
- (f) Name, grade, rate, Social Security Number, and exact diagnosis of each secondary tuberculosis case.
- (g) Comments on investigation including any problems.

6. Tuberculosis Control Among Dependents and Other Civilians.

a. Dependents.

- (1) As part of health education efforts, commands shall impress upon dependents the importance of routine TB preventive measures. Within their capabilities, commands in known high-risk areas should extend the active duty program to those dependents residing in the area. Dependent contacts of active cases of TB shall be given periodic screening with either tuberculin test or chest radiographs, as appropriate. Chemoprophylaxis will be administered, when indicated.
- (2) If active TB is diagnosed in a military dependent, the medical treatment facility (MTF) establishing the diagnosis shall notify the appropriate public health authorities. Dependents may obtain care through the local public health department, military MTF, or through civilian sources, as appropriate. The MTF making the diagnosis should provide advice on available treatment alternatives.

b. Positive Skin Tests in Children Under 6 Years of Age. Preventive treatment is definitely recommended for all positive tuberculin reactors under six years old. The Mantoux method shall be used to confirm "positive" responses elicited by other tuberculin testing methods.

c. Alien Dependents. See "Tuberculosis Among Foreign-Born Persons Entering the United States," Centers for Disease Control and Prevention, MMWR, Dec 28, 1990 (Vol. 39), and the U.S. Immigration and Naturalization Act for the waiver procedure an alien with PMTB to enter CONUS.

d. Civilian Personnel. If a civilian employee under Coast Guard cognizance is discovered to have active TB, the medical administrative officer or the medical officer of the activity shall make arrangements for contact investigation of close work associates. Local public health authorities shall be notified. Coast Guard

personnel who are close contacts of the employee shall have detailed entries made in their medical records and receive appropriate follow-up.

7. Decontaminating Spaces Occupied by Persons with Active PMTB.

- a. Pulmonary tuberculosis is transmitted by small airborne droplets or droplet nuclei from persons in close contact or possibly through ventilation systems, such as on ships. Other dried secretions and fomites in themselves do not pose significant hazards unless aerosolized. Therefore, only normal laundry and cleaning procedures with sodium hypochlorite (household bleach) are necessary for linen and bedding of a person with active PMTB. Take care not to shake dirty linen to launch particles on it into the air.
- b. When a case of PMTB is discovered aboard a ship, the filters in the ventilation system exhausting the berthing, messing areas, work spaces, and medical spaces must be replaced and cleaned. In this situation contact the Commandant (G-WKH) or appropriate MLC (k), for specific instructions. Increase circulation of fresh air and, if possible, exposure of spaces to natural light (sunlight) will rapidly clear any infectious, airborne droplet nuclei from the spaces.
- c. No other sanitation measures are necessary. Consult a medical officer for advice in specific instances.

FIGURE 7-D-1

SUMMARY OF TESTING PROCEDURES

TUBERCULIN (PPD) SKIN TEST	RECOMMENDED ACTION
Unknown	Perform a PPD, using intermediate strength PPD (5 TU).
History of strongly reactive or vesiculated reaction	Perform a PPD using the regular dose of <u>first strength</u> PPD (1TU). If this test's results are negative, follow up with a subsequent test using a full dose of <u>intermediate strength</u> PPD (5TU).
Last test reactive	Determine if an appropriate medical follow-up and/or chemoprophylaxis has been pursued. If not, perform a standard posterior-anterior chest radiograph. If the chest radiograph and a review of signs and symptoms reveal no findings, consider prophylaxis. If proper medical follow-up previously has been pursued, counsel the patient on the need to monitor him- or herself for signs of active pulmonary tuberculosis. Further follow-up is not indicated.
<p>Evaluate these classes of personnel as Section 7-D-4 outlines.</p> <ol style="list-style-type: none"> 1. Those with unknown or previously nonreactive tuberculin status who are found upon testing to be PPD reactors. 2. Those with reactive skin tests who have not been medically examined for tuberculosis before. 3. Those with suspicious chest radiograph findings. <p>NOTE: A reactive single/multiple puncture TB skin test, i.e., Monovac or Tine Test, to test children; must always be verified by PPD.</p>	